

## PREFACE

THE PURPOSE of this book is to instruct the reader how to rebuild player pianos and related instruments. It is my intent to enable an individual who has had no previous experience in player piano work to do competent rebuilding of most types of roll-operated automatic pianos. This book cannot make an expert repairman out of a person who is unable to change a tire or replace a faucet washer. A certain amount of mechanical ability is essential for player piano work. However, if a reader with a modicum of mechanical ingenuity will follow this book's instructions, he should be able to do a passable job of rebuilding a player piano on his first attempt.

The scope of the book is the *rebuilding* of the player piano, as its title implies. I have not written, nor did I intend to write, a guide to *repairing* the player piano. If the reader expects to find a book full of handy tips for specific, on-the-spot repairing of players, he will be disappointed. This book will not tell "what to do if a Standard Player Action won't track," or "how to fix a stuck valve in an Apollo

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player." The only way to learn to do repairing is first to learn to do rebuilding. Therefore, I have attempted to present as clear an account as possible of the processes involved in rebuilding pneumatic player mechanisms. Player pianos, with the exception of the new ones being built today, are "getting old." Many of them have ceased to function because of the deterioration of their pneumatic systems; and those which are still playing on their original systems will eventually need to be rebuilt. As the next decade elapses, fewer and fewer players will still be operating, and more will need rebuilding. I have chosen to concern myself with the complete restoration of the pneumatic actions, rather than with patchwork repairs which may only serve to keep the pianos functioning a little while longer. Any player piano, except the new ones, which is operating thirty years from now will have been *rebuilt*—and it is this facet of the field with which this book deals.

The main focus of the book is on the 88-note upright player piano. In my opinion, any novice should begin his piano-rebuilding career with a simple 88-note pedal player. After he has done several complete jobs on these, he will be ready to advance to more complex instruments such as nickelodeons and reproducing pianos. He should gain his basic, fundamental experience on a few 88-note pedal players before attempting anything else. Pedal players are generally the easiest and least complicated instruments to rebuild; and the novice can be secure in the knowledge that if he should happen to ruin the player mechanism irreparably in his first effort, he has not spoiled a very rare or valuable piece of equipment, as might be the case had he tackled a reproducing piano or a nickelodeon prematurely.

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This book contains little material on nickelodeons, and none on band organs and other automatic instruments. Since the book is intended to be an instructor in the basic technique of rebuilding pneumatic player instruments, I see no need to include material on specific types of instruments, with the exception of the reproducing piano. The procedure for re-covering a pneumatic is the same whether the pneumatic happens to come from a nickelodeon, a reproducing piano, an 88-note player, or a band organ. Once the basic procedures of rebuilding are learned, the repairman can take any sort of instrument in his stride. For this reason too, this book does not deal with the rebuilding of each individual make of piano. Not only are there far too many brands to deal with specifically, but it is unnecessary to do so. Anyone can figure out how to take a piano's player action apart: what this book attempts to do is to explain what to do *after* it is apart.

The reproducing piano section, dealing with the Ampico, the Duo-Art, and the Welte-Mignon players, does deal specifically with some of the problems which arise in connection with these instruments. Reproducing pianos are extremely sensitive machines, and certain special techniques are necessary in their adjustment and maintenance. Although reprints of the factory service manuals for the Ampico, the Duo-Art, and the Welte-Mignon are available, they all leave much to the imagination, and often are grossly incomplete. Therefore, the reproducing piano section of this book was written as a supplement to the manuals. There is currently a revival of interest in reproducing pianos, and owing to the scarcity of technicians who are thoroughly conversant with the intricacies of their mechanisms, I

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deemed it advisable to include a section dealing with their specific service problems.

The section on reed organ repair is admittedly short; but its length is proportionate to the difficulty of the subject matter. Most reed organs can be repaired easily, and the task is more tedious than difficult. Although reed organs are only remotely related to player pianos, I have included information on their repair because of the increasing number of people who wish to restore old organs for use in homes. Since the techniques of repairing organs are not too much different from those of repairing player pianos, it seemed apropos to include them here.

It is highly recommended that entire sections of the book be read at one time. This is advantageous not only in that the reader can carry his train of thought to its conclusion, but also because of the nature of the material presented. Technical material is difficult to compress; and, due to the mechanics of literary presentation, one occasionally has to get ahead of oneself, so to speak. When describing, in detail, the procedure of performing a certain operation, it is not always possible to present the various steps in order. Occasionally, an operation must be begun before the previous one is completed—yet the instructional material would become incoherent if presented in this manner. For this reason, it is wise to read an entire section through to get the general picture of what must be done, before starting to do the described work.

Since this is the first publication dealing with player piano rebuilding which approaches book length, I have had no predecessors on whom to build or to enlarge. As is generally the case with "firsts" in any field, this book will probably be

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criticized as incomplete or inadequate in certain sections of its subject matter. In defense of this criticism, I can only say that the book has been written solely from my personal experience as a collector and restorer of automatic pianos. If my experience has been somewhat one-sided in any aspects of the field, I have no doubt that it will show up in this book. However, one has to begin somewhere; and the need for a technical treatise on rebuilding the player piano is presently so great that this book, adequate or not, will, I hope, perform its intended service.

I am grateful to the individuals who have encouraged and assisted my efforts. In particular, I wish to thank Durrell Armstrong, Roy Haning, and Harvey Roehl for their contributions of needed information and advice.

LARRY GIVENS  
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